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Amendments to the Specification

Please amend the paragraphs at page 1, lines 3-9, in the following manner:

This invention relates to analyzing and evaluating biological function data in an image diagnostic apparatus such as a CT apparatus or an MRI apparatus relying upon a tomogram obtained thereby.

~~Field of the Invention~~ Background

Please amend the paragraphs at page 3, line 18 through page 10, line 19, in the following manner:

~~Disclosure of the Invention~~ Summary

~~It is an object of the present invention to provide~~ In an aspect of this disclosure, there is provided an apparatus for diagnosing image, which is capable of easily judging the danger degree by summarizing the data obtained from a tomogram and the data obtained from a plurality of functional images into a piece of image by using a single apparatus for diagnosing image (modality). ~~The object of the present invention is to provide~~ For example, an apparatus and a method for diagnosing image, in an exemplary embodiment, includes [[by]] displaying the data of a necessary portion only among the data in a plurality of required functional images, rendering the judgment free of confusion caused by complex data, and making it possible to efficiently judge the danger degree.

~~Another object of the present invention is to provide~~ In an aspect of this disclosure, there is provided an apparatus and a method for diagnosing image, capable of analyzing biological function data by easily grasping a change in the biological functional data with the passage of time from a functional image formed based on the CT images or the MR images in the examinations of a plural number of times without losing the shape inherent in the region that is examined.

~~A further object of the present invention is to provide~~ In another aspect of this disclosure, there is provided an apparatus and a method for diagnosing image, which is capable of objectively evaluating and analyzing the biological function data with

the passage of time irrespective of a particular habit of an operator even when the same data are analyzed by a different operator.

~~A still further object of the present invention is to provide~~ In an aspect of this disclosure, there is provided an apparatus and a method for diagnosing image, which is capable of grasping and analyzing a change in the biological function data with the passage of time without using a plurality of modalities but using a modality of either a CT apparatus or an MR apparatus.

~~That is, a~~ A first feature of ~~the present invention~~ this disclosure is concerned with an apparatus for displaying image comprising means for collecting image data of a person being examined, means for forming a tomogram from the image data, means for calculating at least one biological function data from the tomogram, means for forming at least one functional image based on the biological function data, means for forming composite image by composing said tomogram and at least one of the following images; an operated image obtained by operating said functional images together, a composite image obtained by composing said functional images together, said operated image, and said functional image; and display means capable of displaying the functional image, the operated image, the tomogram and the composite image, wherein the means for forming the functional image and the means for forming the composite image work to display at least portions of the regions in the functional image and in the operated image on an arbitrary gradation color scale corresponding to the evaluated value of the biological function data, and other regions in the functional image and in the operated image are displayed in an arbitrary color which is not included in the gradation color scale, or are displayed transparently.

A second feature of ~~the present invention~~ this disclosure resides in an apparatus for displaying image of the above first feature, wherein the composite image is displayed by any one of an overlapped display, a parallel display or a partial display.

A third feature of ~~the present invention~~ this disclosure resides in an apparatus for displaying image of the above first or second feature, wherein means for forming the functional image sets to zero the ratio of the functional image in other regions in the functional image.

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A fourth feature of ~~the present invention~~ this disclosure resides in an apparatus for displaying image of the above first to third features, wherein means for forming the functional image is capable of arbitrarily varying the gradation color scale allocated to the biological functional data.

A fifth feature of ~~the present invention~~ this disclosure resides in an apparatus for displaying image of the above first to fourth features, wherein means for forming the composite image is capable of arbitrarily setting the ratios of the functional images in the composite images and of the tomogram.

A sixth feature of ~~the present invention~~ this disclosure resides in an apparatus for displaying image of the above first to fifth features, wherein means for forming the functional image specifies part of the regions in the functional image depending upon whether the image data value of the pixel unit lies inside or outside a predetermined range.

A seventh feature of ~~the present invention~~ this disclosure resides in an apparatus for displaying image of the above first to sixth features, wherein means for forming the functional image determines an arbitrary region of interest in the functional image as part of the region in the functional image.

An eighth feature of ~~the present invention~~ this disclosure resides in an apparatus for displaying image of the above first to sixth features, wherein means for forming the functional image renders the pixel values of the pixels of the image data on a predetermined window level and in a predetermined window width to be corresponded to conversion coefficients, and determines the gradation color scale based on the conversion coefficients.

A ninth feature of ~~the present invention~~ this disclosure resides in an apparatus for displaying image of the above first to eighth features, wherein means for forming the functional image determines the gradation color scale allocated to the functional image depending upon the pixel values of the pixels of the image data for each of RGB and upon various look-up tables to which the conversion coefficients are corresponded.

A tenth feature of ~~the present invention~~ this disclosure resides in an apparatus for displaying image of the above first to ninth features, wherein the biological

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function data is at least one of the blood flow function data as represented by blood volume, blood flow and mean transit time.

An eleventh feature of ~~the present invention~~ this disclosure is concerned with a method of displaying image comprising a step of collecting image data of a person being examined, a step of forming a tomogram from the image data, a step of calculating at least one biological function data from the tomogram, a step of forming at least one functional image based on the biological functional data, a step of forming a composite image by composing said tomogram and at least one of the following images; an operated image obtained by operating said functional images together, a composite image obtained by composing said functional images together, said operated image, and said functional image; and a display step capable of displaying the functional image, the operated image, the tomogram and the composite image, wherein the step of forming the functional image and the step of forming the composite image work to display at least portions of the regions in the functional image and in the operated image on an arbitrary gradation color scale corresponding to the evaluated value of the biological functional data, and other regions in the functional image and in the operated image are displayed in an arbitrary color which is not included in the gradation color scale, or are displayed transparently.

A twelfth feature of ~~the present invention~~ this disclosure resides in a method of displaying image of the above eleventh feature, wherein the composite image is displayed by any one of an overlapped display, a parallel display or a partial display.

A thirteenth feature of ~~the present invention~~ this disclosure resides in a method of displaying image of the above eleventh to twelfth features, wherein the step of forming the functional image sets to zero the ratio of the functional image in other regions in the functional image.

A fourteenth feature of ~~the present invention~~ this disclosure resides in a method of displaying image of the above eleventh to thirteenth features, wherein the step of forming the functional image is capable of arbitrarily varying the gradation color scale allocated to the biological function data.

A fifteenth feature of ~~the present invention~~ this disclosure resides in a method of displaying image of the above eleventh to fourteenth features, wherein the step of

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forming the composite image is capable of arbitrarily setting the ratios of the functional images in the composite images and of the tomogram.

A sixteenth feature of ~~the present invention~~ this disclosure resides in a method of displaying image of the above eleventh to fifteenth features, wherein the step of forming the functional image specifies part of the regions in the functional image depending upon whether the image data value of the pixel unit lies inside or outside a predetermined range.

A seventeenth feature of ~~the present invention~~ this disclosure resides in a method of displaying image of the above eleventh to sixteenth features, wherein the step of forming the functional image determines an arbitrary interested region in the functional image as region of interest in the functional image.

An eighteenth feature of ~~the present invention~~ this disclosure resides in a method of displaying image of the above eleventh to seventeenth features, wherein the step of forming the functional image renders the pixel values of the pixels of the image data on a predetermined window level and in a predetermined window width to be corresponded to conversion coefficients, and determines the gradation color scale based on the conversion coefficients.

A nineteenth feature of ~~the present invention~~ this disclosure resides in a method of displaying image of the above eleventh to eighteenth features, wherein the step of forming the functional image determines the gradation color scale allocated to the functional image depending upon the pixel values of the pixels of the image data for each of RGB and upon various look-up tables to which the conversion coefficients are corresponded.

A twentieth feature of ~~the present invention~~ this disclosure resides in a method of displaying image of the above eleventh to nineteenth features, wherein the biological function data is at least one of the blood flow function data as represented by blood volume, blood flow and mean transit time.